

## APPENDIX B

(Continued)

## Successful Launches to Orbit on U.S. Launch Vehicles October 1, 1996–September 30, 1997

Launch Date Spacecraft Name COSPAR Designation Launch Vehicle	Mission Objectives	Apogee and Perigee (km), Period (min), Inclination to Equator (°)	Remarks
<b>May 20, 1997</b> Thor 2A 25A Delta II*	Norwegian communications spacecraft.	Geosynchronous	
<b>July 1, 1997</b> Space Shuttle <i>Columbia</i> (STS-94) 32A Space Shuttle	Reflight of STS-83 and Microgravity Science Laboratory.	299 km 294 km 1 hour 31 minutes 28.5°	Mission proceeded successfully.
<b>July 9, 1997</b> Iridium 15, 17, 18, 20, and 21 34A-E Delta II*	Communications satellite.	645 km 635 km 1 hour 37 minutes 86.4°	
<b>July 23, 1997</b> Navstar 43 (USA 132) 35A Delta II	Global Positioning System (GPS) satellite.	20,224 km 19,903 km 11 hours 53 minutes 54.9°	
<b>July 28, 1997</b> Superbird C 36A Atlas IIAS*	Japanese communications satellite.	Geosynchronous	
<b>Aug. 1, 1997</b> Orbview 2 37A Pegasus XL*	Ocean monitoring satellite.	319 km 297 km 1 hour 31 minutes 90.7°	Formerly known as Seastar.
<b>Aug. 7, 1997</b> Space Shuttle <i>Discovery</i> (STS-85) 39A Space Shuttle	Deploy CRISTA-SPAS-2 infrared radiation monitor and the Hitchhiker package of four experiments on ultraviolet radiation.	309 km 298 km 1 hour 30 minutes 57.0°	The crew also successfully performed the Japanese Manipulator Flight Demonstration of a robotic arm.
<b>Aug. 7, 1997</b> CRISTA-SPAS-2 39B Space Shuttle	German scientific spacecraft.	Orbital parameters similar to STS-85	Retrieved by Shuttle crew after 9 days of free flight.
<b>Aug. 21, 1997</b> Iridium 26-22 43A-E Delta II*	Communications satellites.	525 km 505 km 1 hour 35 minutes 95.0°	
<b>Aug. 23, 1997</b> SSTI-Lewis 44A LMLV-1*	Environmental monitoring satellite.	299.5 km 283.2 km 1 hour 31 minutes 97.6°	A few days after launch, Lewis began spinning uncontrollably and with diminishing solar power.

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### October 1, 1996–September 30, 1997

Launch Date Spacecraft Name COSPAR Designation Launch Vehicle	Mission Objectives	Apogee and Perigee (km), Period (min), Inclination to Equator (°)	Remarks
<b>Aug. 25, 1997</b> Advanced Composition Explorer (ACE) 45A Delta II	Space physics scientific spacecraft.	1,256,768 km 179 km 1,398 hours 28.7°	
<b>Aug. 29, 1997</b> FORTE 47A Pegasus XL	Military arms control spacecraft.	833 km 799 km 1 hour 41 minutes 70.0°	
<b>Sep. 4, 1997</b> GE-3 50A Atlas IIAS*	Communications satellite.	Geosynchronous	
<b>Sep. 25, 1997</b> Space Shuttle <i>Atlantis</i> (STS-86) 55A Space Shuttle	Seventh Shuttle mission to <i>Mir</i> .	392 km 370 km 1 hour 32 minutes 1 hour 32 minutes 51.6°	David Wolf replaced Michael Foale on <i>Mir</i> .
<b>Sep. 26, 1997</b> Iridium 34, 35, 36, 37, and 19 56A-E Delta II*	Communications satellites.	559 km 542 km 1 hour 36 minutes 86.7°	

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